

REMARKS

Applicants respectfully request reconsideration of the above referenced patent application in view of the amendments and remarks set forth herein, and respectfully request that the Examiner withdraw all rejections. Claims 1, 3, 16, 24, 25, 26, 31, 33, 38, 39 and 41 have been amended. No claims have been canceled. No claims have been added. Thus, claims 1-44 are pending.

35 U.S.C. §112 Rejections

Rejections under 35 U.S.C. §112, ¶2

The Office Action rejects claim 39 under 35 U.S.C. §112, ¶2 for failure to point out and distinctly claim that which Applicants regard as their invention. More particularly, the Office Action alleges that claim 39 includes an indefinite use of the word “can”. Applicants traverse the above rejection for at least the following reasons.

Without agreeing as to the basis for the above claim rejection, and in order to advance the application to allowance, Applicants amend claim 39 to remove any reference to the word “can”. Applicants respectfully submit that currently amended claim 39 particularly points out and distinctly claims that which Applicants regard as their invention. Therefore, Applicants respectfully request that the 35 U.S.C. §112, ¶2 rejection of claim 39 be withdrawn.

35 U.S.C. §101 Rejections

The Office Action rejects claims 1-41 under 35 U.S.C. §101 as being directed toward non-statutory matter. More particularly, the Office Action alleges that the claims are not directed to a practical application. The Office Action further alleges that claims 16-23 are directed to a non-tangible medium. Applicants traverse the above rejection for at least the following reasons.

Without agreeing as to any alleged basis for the above claim rejections, and in order to advance the application to allowance, Applicants amend each of independent claims 1, 16, 24, 31, 38, and 41 to variously recite storing as speech compression information data describing a determined value. The claim amendments are supported in

the original disclosure at least by memory 420 of FIG. 4 and by paragraph [0041] of the specification. Applicants respectfully submit that each of the claims 1-41 as currently amended is directed to a practical application at least insofar as each claim includes a useful, tangible, and concrete result of storing speech compression information.

With regard to claims 16-23, Applicants amend independent claim 16 to more particularly refer to machine-accessible **storage** medium” (emphasis added). Applicants further amend paragraph [0011] of the specification to remove references to propagated signals. Applicants respectfully submit that, as amended, claims 16-23 are directed to tangible machine-accessible storage medium.

For at least the foregoing reasons, each of claims 1-41 is directed to statutory subject matter as required by 35 U.S.C. §101. Therefore, Applicants respectfully request that the 35 U.S.C. §101 rejection of claims 1-41 be withdrawn.

35 U.S.C. §103(a) Rejections

35 U.S.C. §103(a) Rejection over *Tremiolles*

The Office Action rejects claims 1-4, 6-17, and 19-37 under §103(a) as being obvious in light of allegedly admitted prior art, in view of *de Tremiolles et al*, USPN 6,748,405 (hereinafter “*de Tremiolles*”). To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by one or more prior art references. *See* M.P.E.P. § 2143.03. For at least the following reasons, Applicants traverse the above rejection.

Applicants respectfully submit that each of the above rejected claims is not obvious in light of *de Tremiolles*, based at least on the failure of the references to teach or suggest (emphasis added):

“...determining a number of parallel processing blocks based on a capacity to transmit elements of a set of values derived from a set of ratios;
dedicating parallel processing blocks based on the determined number;...”

as variously recited in current independent claims 1, 16, 24 and 31. Applicants amend the claims herein in order to advance the application to allowance, and without agreeing as to any alleged basis of the above rejection. The claim amendments are supported in the original disclosure at least by paragraphs [0018]-[0019] and [0027] of the specification.

In rejecting the claims, the Office Action alleges that *de Tremiolles* discloses performing steps in parallel to determine an optimal value. *De Tremiolles* is directed to searches in a set of *p* Numbers to determine one of a minimum value and a maximum value. See, e.g. *de Tremiolles* Abstract. However, as stated in col. 3, lines 40-48 (emphasis added)

“[t]he circuit for searching the minimum/maximum value among a set of **p numbers** referred to as Numbers... comprises... **p blocks**, each block being associated to a Number”

In other words, the size *p* of the set of numbers to be searched in *de Tremiolles* is **determinative** of the number *p* of parallel processes by *p* blocks which are to operate on said set of numbers. As stated in *de Tremiolles* col. 6, lines 6-11, the operation of searching circuit 19 is essentially parallel in the sense that the *p* numbers are processed **simultaneously**. Each of the *p* numbers gives rise to encoded sub-values, and all of the *p* encoded sub-values of the same rank are **simultaneously processed by the *p* blocks** to determine the minimum sub-value for a slice. For the whole set of *p* numbers, each slice of a same rank from MSB to LSB is processed in parallel using a *p*-way AND gates. As a consequence, the search for the minimum among a set of sub-values can be performed in **only one step**. See, e.g. *de Tremiolles* col. 7, lines 38-43.

Accordingly, *de Tremiolles* does not allow for anything other than the size *p* of the set of numbers to be searched to determine the number *p* of blocks used in parallel processing. By contrast, Applicants claimed invention determines a number of parallel processing blocks based not on a number of elements to be searched, for example, but rather on a **capacity to transmit** elements. Even assuming *arguendo* that all other claim limitations are taught or suggested by the reference, which Applicants do not agree, *de Tremiolles* nevertheless fails to teach or suggest determining a number of parallel processing blocks based on a capacity to transmit elements. Therefore, the cited reference fails to either teach or suggest at least one limitation of the invention as variously recited in each of independent claims 1, 16, 24 and 31.

Nor does *de Tremiolles* teach or suggest particular limitations in the current claims which are directed to **iterative** parallel processing. With particular reference to at least claims 12, 15, 23, 25, 26 and 30, Applicants further note that certain claim

limitations are variously directed, for example, to (1) comparing a ratio to a previously computed ratio determined on a previous iteration of parallel processing, and/or (2) repeating the elements of comparing and selecting in a processing block if there are two selected values among the processing blocks. To the extent that *de Tremiolles* uses *p* processing blocks to perform in **only one step** a search for the minimum sub-value, *de Tremiolles* fails to teach or suggest either (1) comparing a calculated value of a **current iteration** of parallel processing to a calculated value of a **previous iteration** of parallel processing, or (2) **repeating** parallel processing of two or more results from a previous iteration of parallel processing. Furthermore, insofar as these iterative features of the claimed processing are necessarily part of the novel **parallel** processing described in Applicants original disclosure, Applicants do not admit that any such iterative features of the claims are prior art.

For at least the foregoing reasons, each of independent claims 1, 16, 24 and 31 is non-obvious in light of any allegedly admitted prior art *de Tremiolles*. If an independent claim is non-obvious under 35 U.S.C. §103, then any claims depending therefrom – e.g. claims 2-4, 6-15, 17, and 19-23, 25-30 and 32-37 – are also non-obvious. *See* M.P.E.P. §2143.03. Accordingly Applicants request that the above 35 U.S.C. §103(a) rejection of claims 1-4, 6-17, and 19-37 based on *de Tremiolles* be withdrawn.

CONCLUSION

For at least the foregoing reasons, Applicants submit that the objections and rejections have been overcome. Therefore, claims 1-44 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application. Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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